An Essay on

Pleuritis

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by

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Pleuritis or Pleurisy

Pleuritis or Pleurisy are terms used to distinguish that variety of Phlegmasia which is seated within the Thorax, and effects the serous membrane proper to that cavity. The Pleura, which is the part affected in Simple Pleuritis, is classified anatomically with serous membranes, and possesses the distinguishing feature of such tissues in being a shut sac. To render our remarks more comprehensive it may not be amiss to give a brief Anatomical outline of the manner in which the Pleura is arranged.

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composition, and Anatomical arrangement is similar. The Pleura is so disposed that it lines the Thoracic cavity, and invests the Lungs without a division of continuity. Suppose, for the sake of discription we commence with that portion which lines the wall of the chest. On each side of the Vertebral column it is reflected from the parieties of the Thorax upon the roots of the Lungs, to form the investing membrane for those organs; having enveloped the Lungs it is reflected from their roots, anteriorly to the wall of the chest where we commenced. That portion which is situated on the ribs is called the Pleura costalis, and which is much stronger and denser than that which invests the Lungs, which is the Pleura Pulmonalis. Where the Pleura follows the course of the fissure,

which divides the Lungs into lobes, it is called Interlobular. The reflection from the Spine to the Lungs forms a space which is the posterior Mediastinum, in contradistinction to the Anterior mediastinum, which is made by the reflection from the Lung to the Spine. The Pleura diaphragmatica is that portion which is spread over the diaphragm. The Pleura when examined in the healthy state is found to be a transparent membrane, composed of two distinct layers. The internal is strictly serous, and is the free surface; whilst the external approximates somewhat to fibrous tissue, and forms the attached surface. From the manner in which the Pleura is reflected, it will be easily understood that the Parietal, and Viceral portions are opposed to each

other, leaving, in the healthy state, an intervening space which is the seat of effusion, when it occurs.

Pleuritis presents itself in various and important forms. It may be acute, or chronic:— single, or double; although the single is much more frequent than the double; simple, or complicated. If Pleuritis and Pneumonia should be combined, the Pneumonia at the same time being more prominant, we style it Pleuro-Pneumonia: When Pneumonia and Pleuritis coexist, however, with the Pleuritis predominant, it constitutes Pneumo-Pleuritis. Pleuritis occurs more frequently per se than Pneumonia, the latter occuring very seldom without being accompanied with Pleuritis; and this combination occurs so frequent that some authors give the name of Pleuro-

-Pneumonia to all cases of inflamation of the Lungs indiscriminately.

This disease occurs most frequently in cold, and variable climates, as is the case with serous membranes generally, hence we find it prevailing mostly in the northern, and middle sections of our country.

The causes of Pleuritis may be divided into local, and general. A sudden transition from heat to cold, more particularly if the body be bathed in perspiration, wearing damp, or wet clothing; sleeping in a damp bed, or anything in fact that will produce a violent shock to the system. External violence directly applied to the chest; as a blow from some blunt instrument, Stab, &c. Pleuritis frequently follows fracture of the Ribs. Organic disease of the Lungs frequently involves

Pleuritis. Pneumonia is very generally accom-
-panied by Pleuritis. The Pleura is very apt
to be involved, sooner, or later in Phthisis
Pulmonalis; hence, in making Pathological
investigations you will find wherever there
is Tuberculosis of the Lung, there will be
adhesions existing between the costal, and
Pulmonary Pleura. All ages are liable to
this disease; but it is more frequently found
to exist in adults. Some authors contend
that it is a disease of intra-uterine existance,
and authenticated cases are produced in which
Signs of Pleuritis, or where purulent Effusion
was found on dissection of Still-born children,
and those, who died immediatly after
delivery. Upon examining the Pleura after
death, we find more or less redness, however,
in some instances it is dry, and retains

its normal transparency; whilst in the other cases we find the membrane covered with a coating of soft concrete matter, which is scarcely visible, but can easily be demonstrated by scraping it from the surface with the scalpel Alterations take place in the secretions, which are modified both in quantity, and quality. It may be increased from an ounce, to several quarts. The quantity of fluid, in some cases, is sufficient to entirely fill up the cavity of the Pleura; pushing down the Diaphragm so as to encroach upon the dimensions of the Abdominal cavity, and exerting a lateral force, sufficient to widen the intercostal spaces, forcing the muscles out on a level with the ribs; giving the diseased side a smooth and uniform appearance. The Heart and Mediastinum may be displaced.

If the effusion be in the left Side, the Heart may be forced to the right of the Sternum. The condition of the Lung is modified by the extent of effusion. If the quantity of fluid be very great, the Lung may be compressed, and forced from its ordinary position; this usually takes place toward the Spine, or Mediastinum, reducing it to a sort of flattened cake, occupying a limited Space: thus compressed it does not crepitate, is impervious to air, becomes dence and sinks in water. In relation to the character of the fluid effused, it may be colorless, but is more usually of a transparent pale lemon color, containing flocculi of concrete albumen; of liner however it is more turbid, like whey, sometimes it is purulent, at others sero-purulent, and

occasionally Purulent. The different kinds of effusion are inodorous when excluded from the air, but becomes offensive when exposed to the Atmosphere. An effusion, of Liquor Sanguinous, is occasionally thrown out upon the free surface of the Pleura, by the vessels, which becomes organized, forming the false membrane, which is sometimes found upon examination; it may be attended either with or without effusion. The extent of the false membrane varies according to the extent of the inflamation, which has produced it. The plastic linjph, which is the product of Pluritis, is sometimes thrown out without the effusion, and forms a bond of union between the Pleura-Costalis and Pulmonalis, which is so often met with in dissections; and has been

regarded as the most common of all morbid appearances; and may be found to a greater, or less extent in a large proportion of bodies.

Symptoms. Pain is one of the most constant symptoms of the disease, although Pleuritis may exist without it in cases which are termed Latent Pleurisy, occuring chiefly in the weak, and those debilitated by disease. The pain is very sharp, and severe, and has been compared to thrusting a sharp instrument into the side. Usually the pain exists from the outset of the disease, but is not always fixed at the first, but at the end of a few days it becomes fixed, and constant; and after being for four or five days excessively severe, it diminishes in violence, becomes obtuse, and may entirely disappear before the termination

of the disease. The amount of pain is no criterion of the extent of inflamation; the pain may be confined to one spot; when part, or all, of the Pleura may be effected. When the inflamation is seated wholly or partially in the Pleura Costalis, the pain is increased by percussion, and pressure upon the intercostal spaces. The febrile excitement is generally considerable, and usually sets in with a chill, loss of apitite, furred tongue, scanty urine, thirst. There may be daily remissions, and exacerbations, of the fever; the former occuring in the morning, the later in the afternoon. The Cough is at first short, and dry, or accompanied with a thin mucous, or frothy expectoration; Sometimes, however, a slight bronchial inflamation may exist, and in such cases the expectoration is more

copious, and sometimes streaked with blood. The cough never occurs in fits, or paroxysms, but is a continued, dry, hacking cough. The dyspnea is always more or less difficult, on account of the pain produced by a free expansion of the Thorax: and we always have short, and hurried breathing. The dyspnea instead of diminishing with the pain, sometimes increases, on account of the effusion which, in some cases, is very considerable. The effusion occupying a part of the chest, prevents the Lungs from expanding to their proper extent; this often occasions much distress, and is sometimes alarming. The decubitus, or position in which the patient lies, cannot be relied upon as a Symptom. But the rule generally is, that in the first Stage, the position is on the healthy side, but in after periods, when the pain has

ceased, and effusion taken place it may be either on the diseased side, or upon the back. The Physical Signs are more to be relied upon in making out a correct diagnosis. At the commencement of the disease we have upon Percussion, a clear sound, and no other Auscultatory Sign, than some diminution of the Respiratory murmur, which is occasioned by the limited expansion of the Chest. Early in the disease, however, a rubbing, or friction sound is heard, which may indicate that the secretion has been arrested from the Pleura, or what is more generally thought, it indicates that an exudation of plastic linph has been thrown out, covering, and roughening the surface of the membrane: And the rubbing together of these roughened surfaces causes the Friction sound, which,

Sometimes is very slight, at others, it is so loud, as to resemble the creaking of leather The grating movement, which gives rise to the sound, may even be felt by applying the hand flatly to the chest. After liquid effusion has taken place, we have a diminution of the healthy resonance upon percussion, which can easly be perceived by compairing the two sides, when the disease is confined to one. The dulness advances, as the effusion increases, and sometimes amounts almost to flatness. The dulness is observed at the most dependant part, and rises with the increas of the fluid, and varies with the position of the patient, following the fluid, which gravitates to the most dependant part; and the Lung which is lighter floates upon the Surface. By placing the hand upon the chest, corresponding to the

seat of effusion, very slight, or no vibrations can be felt, which in health are very manifest. The respiratory murmur, which was at first enfeebled by the defective expansion of the Thorax, goes on diminishing with the increase of fluid, and in those cases where the effusion is abundant entirely ceases, from the compression of the Lung. In parts of the chest where the Lung is still in contact, instead of the healthy murmur, we have Bronchial Respiration, caused by compression of the air cells, which convey more readily to the surface, the vibrations of the Bronchiæ. On the healthy side, the respiration is heard much more distinctly than is usual in health. When a moderate effusion has taken place into the Pleural Sac, and a thin stratum

of liquid intervenes between the Lung and side of the Chest, there is a singular resonance sound, which is heard most generally between the third, and sixth ribs, or in the inter-scapular space: it is a peculiar tremulous, shattered voice, and resembles the voice of a Goat; hence named Egophany, or Goat's voice. This peculariety, is the Bronchial sound conveyed outward by the compressed Lung, and modified by its transmission through the stratum of liquor, and acquires the characteristic above alluded, to before it reaches the ear. As the effusion increases, the Egophany decreases, until it entirely disappears. When the effusion is very great, the effected side remains quiescent, while the other moves in respiration, also, there is an increase in the size of the side effected. Protrusion of the

intercostal spaces may exist, or appear entirely smooth, and do not present the usual depressions which are found in health. The smoothness of the Thorax is not met with in the early period of the disease, but is peculiar to Pleuritis in the advanced Stage, and is one of the most important Signs of advanced Pleuritis, as it does not occur in any disease of the Lungs. The course of Pleuritis is very variable. If seen in the first Stage, and properly treated, it may terminate favorably in the course of a few hours or days; when effusion has taken place it may be several days, and even weeks, before the patient is entirely cured. But it varies very much according to the violence, and extent, of the disease, there being no definite course. The diseases with which Pleuritis

may be confounded, are Pleurodinea, Pneumonia, and Pericarditis. In Pleurodinea, the physical signs are wanting which have been mentioned in Pleuritis, except the diminution of the respiratory murmer, consequent upon a want of full expansion of the Thorax. The pain in Pleurodinea is more shifting, than in Pleuritis, and is frequently felt in neighbouring parts, and is increased by the twisting motion of the Thorax. Fever, and cough, are generally wanting in Pleurodineae. In Pneumonia the pain is dull, and moderate when the disease is uncomplicated; while in Pleuritis it is sharp, and confined to one ~~spot~~ place. The expectoration which in Pleuritis is mucous and transparent, or simply streaked with blood, in Pneumonia is viscid, and rusty. In Pleuritis we have Friction Sound, and Egophany, which are absent in Pneumoniae,

but we have the crepitant sale, which is absent in Pleuritis. In Pleuritis, if we place the hand upon the chest, we feel no vocal vibrations, while in Pneumonia we feel it much more distinctly. The distention of the chest, the bulging, or smoothness, of the intercostal spaces, and displacement of some of the vital organs, which occurs in Pleuritis, are wholly wanting in Pneumonia. Pleuritis is distinguished from Pericarditis by the situation of the friction sound, also the absence of Egophany in Pericarditis. The position of the dulness, in Pericarditis is circumscribed, and does not change with the position of the patient; while in Pleuritis it changes with the posture of the patient. When inflamation attacks the Pleura, between the lobes of the Lung, or in the Mediastinum, it is very difficult sometimes

to diagnosticate it correctly; also when it occurs at the termination of some other disease, unattended with pain, or cough. The prognosis in Pleuritis is generally favorable. In single Pleuritis, without any complications, occuring in a constitution otherwise healthy, we may look for a favorable issue. But if there be complicated Pleuritis, the case becomes more critical; or if it occurs in the course of febrile diseases, or in an individual whose strength has been impaired by previous attacks of disease, and more particularly if there is any predisposition to Tuberculosis of the Lung, it increases the danger and not unfrequently hastens a fatal issue. If copious effusion take place in uncomplicated cases, the cure is uncertain, but may generally be effected. If a secretion of Pus take place, it is by

hazardous.

The treatment of Pleuritis, as laid down by authorities in Allopathic practice is as simple, and concise as it is injudicious, and a very few words, if necessary, would give a rehearsal of their remidies. But in Homoeopathic practice, where the ensemble of Symptoms, the most minute, as well as the more prominent, it requires no little investigation to select the appropriate remidies The two stages of the disease, the inflamatory and the period of convalescence, as well as the sequel, all require differant remidies, according to the different symptoms.
In the inflamatory Stage of the disease, our chief indication is to quiet Arterial action. If the febrile excitement is great, the pain in the Chest very acute, and lancinating,

with laborious respiration, more particularly if there is hemipulation and thirst, with short hacking cough, Aconite Napellus is the appropriate remedy; and will in a large majority of cases modify ~~the Symptoms~~ the Symptoms in a short time, but in case there should be no benefit derived from this remedy in the Space of Twenty-four hours, it may be advisable to make some change, although, we frequently are obliged to continue the use of Aconite for forty-eight hours, before there is any abatement of the disease At the expiration of twenty-four ~~or~~ forty-eight hours should there be no abatement of the Symptoms, we may use Tart: Emetic; more particularly if the cough be dry, and hacking, with occasional expectoration of mucous streaked with blood. Should the

Symptoms not yield to either of the for-going remedies, and the expectoration set in of a rusty, or chocolate, color; we may suspect a complication with Pneumonia; in such cases the Phosphorus may be administered with good effect. After the inflamatory Symptoms are removed, we frequently have pain in the side, with troublesome cough remaining, which requires attention. Bryonia Alba is suitable after the inflamatory action has subsided; but in many cases, where there is a Slow fever remaining with dry cough, accompanied with Shooting pain in chest, which pain is increased by by motion, it may be requisite to give Aconite, and Bryonia alternately: but if these Symptoms exist without fever, Bryonia may be administered alone. Where there

is a slight delirium, with flushed face, short dry cough, tongue coated with white fur, or dry- inability to lie on the effected side, skin hot, and alternating with perspiration, with exacerbations of fever, Belladonna may be given alternately with Aconite or alone.

Arnica Montana is indicated where Pleuritis has been caused by external violence, also uneasiness in the effected side, inducing constant change of position, accompanied with a feeling as if the side was bruised; with a soreness of the intercostal spaces; stinging pain with dyspnea, cough frequent, and increases the pain. Sulphur is indicated in Pneumo-Pleuritis, where the fever continues after using the for-going remedies, also to prevent

it running into the Chronic form, the
Expectoration in such cases becomes whitish
And increased in quantity.
Nux. Vomica will be useful When the
pain and all inflamatory action has
ceased, the Cough Still remaining troublesome,
with Constipation of the Bowels.
Notwithstanding the use of the remedies
named for the inflamatory, and other
Symptoms, the inflamation may run on
and terminate in Empyema. The fluid
may be Serous,- Seropurulent,- purulent, or
Sanious. And then it becomes necessary
to employ other remedies which will cause
absorption of the fluid, there are the
Squilla, Arsenic, Digitalis, Senega, and
Helleb[illegible]. always Keeping in mind the
totality of Symptoms, in Selecting a remedy.

The remidies, in this disease as in all inflamatory complaints, are better given dissolved in water, and repeating the dose at short intervals. The attenuations used, must be varied according to the severity of attack, age, and constitution of the patient.

Fomentations of hot water applied to the Chest, are sometimes very beneficial, in the inflamatory stage, as well as hot pediluvium with the addition of Mustard.

As long as the inflamatory symptoms continue, the patient must be kept on low diet, such as toast, and tea, gruel, barley water, rye, or Indian mush, with or without milk, boiled rice, &c— after danger has passed away we may

use a more nutricous diet.—

After using the appropriate remedies for Empyema, without any good effect, and the fluids still remain in the cavity of the Pleura, it may become necessary to perform the operation of Paracentesis Thoracis, or tapping the Chest.